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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/811,277	03/16/2001	Sundee Bajikar	42390P10401X	2693

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EXAMINER

TRAN, CONGVAN

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 02/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,277

Applicant(s)

BAJIKAR, SUNDEEP

Examiner

CongVan Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4, 5</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-30 provisionally rejected under the judicially created doctrine of double patenting over claims 1-30 of copending Application No. 09/752,506. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: a transceiver; a correlator; a transmitter; a baseband processing unit etc.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other

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copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6, 8-14, 16-24, 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beal (6,101,178) in view of Reed et al (6,275,707).

Regarding claims 1, 8-9, 11, 16-17, 19, 26-27, Beal discloses a Pseudolite-augmented GPS for locating wireless telephones comprising: a transceiver (see fig.1, element 102) to receive a first code (code sequence or pseudo-random noise code) from a transmitter (101, fig.1, co.7, lines 8-10), wherein the transmitter broadcast the coded signal in close proximity to the transceiver (col.2, lines 8-9) which means the coded signal is a short range wireless signal comparing to a satellite signal, the transceiver generating a second code as a replica of code sequence (col.7, lines 10-15); and a correlator on the receiver that uses the first and second codes to find the distance between the transceiver and the transmitter, the correlator using the distance to determine a position of the transceiver relative to the transceiver (col.7, lines 15-53, col.2, lines 1-30) wherein the correlator determining a first position of the transceiver relative to the transmitter (col.11, lines 41-59), and the correlator determining a second distance between the transceiver and the satellite in order to determine a second

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position of the transceiver relative to the satellite (col.11, lines 10-40). However, Beal does not specifically disclose short range wireless signal is a short range wireless communication standard. Reed discloses method and apparatus for location determination from a first transceiver to a second transceiver to be used in a GPS system (figs. 1-2) in which a short range wireless communication standard as Bluetooth and IEEE standard 802.11 are used (col.2, lines 35-37, 57-60, col.3, lines 1-5). Since Beal and Reed do teach a short range transmission for location determination, therefore, it would have been obvious to one skilled in the art at the time the invention was made to modified the Beal's pseudolite transmitter with the short range wireless communication standard transceiver of Reed to determine location of objects inside the building where the GPS signal being usable to access in order to provide an accuracy location.

Regarding claims 2, 12, 20, Beal further discloses that the transceiver receives first codes from at least for different transmitters, the transceiver using the first codes to determine a position of the transceiver relative to the four transmitters (see fig.1, col.7, lines 9, 48 and its description).

Regarding claims 3, 22, Beal further discloses that the transceiver comprises a radio frequency unit with a radio (fig.2, 102) and a baseband processing unit (fig.2, col.7, lines 13-23, col.9, lines 1-7, 56-67, col.11, lines 48-49, 58-64).

Regarding claim 4, Beal further discloses that the frequency unit processing unit of the transceiver receives the first code sent by the transmitter (col.7, line 8-15).

Regarding claim 5, Beal further discloses that the transceiver the processing unit processes a noise code received from a satellite in a GPS, the transceiver using the noise code to determine a position of transceiver relative to the 4 satellite (fig.3, col.9, lines 1-45, col.11, lines 10-40).

Regarding claims 6, 14, 24, Beal further discloses that the transceiver includes a short-range wireless communication interface to exchange augmentation data with the GPS (col.10, lines 40-14). It is noted that the transceiver transmits and receives signals from the pseudolite transmitter, which is the short range signal comparing to the satellite which is the long range signal (col.8, lines 1-15, col.9 lines 18-41)., wherein the transceiver receives and transmits signal to the pseudolite transmitter inherently including an interface.

Regarding claims 10, 18, 28, Beal further discloses that first and second codes are noise codes (col.9, lines 18-38, col.18, lines 45-48). It is noted that the replica of code generated by transceiver is also a noise code because it comes from the noise code of the pseudolite transmitter/GPS satellite (col7, lines 8-20, col. 9, lines 1-33).

Regarding claims 13, 21, 23, Beal further discloses each transceiver receives GPS noise codes from at least four different satellites, wherein the transceiver using the GPS noise code to determine its position (fig.3-4, col.11, lines 10-40).

5. Claims 7, 15, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beal (6,101,178) in view of Reed et al (6,275,707) and further view of Small (6,449,558).

Regarding claims 7, 15, and 25, Beal further discloses the augmentation data is selected from the group consisting of differential correlations (col.3, line 66), satellite ephemeris data (col.9, line 9), Doppler shift estimates (col.7, lines 59-60). However, Beal does not specifically disclose the augmentation data comprising of a wide area augmentation system (WAAS) corrections, a satellite snapshot data and terrain maps. Small discloses a position system having plurality of satellited (fig.8, 801), a plurality of reference transmitters (fig.8, 802) and at least one transceiver as a mobile terminal (fig.8, 803) wherein the mobile terminal receives signals transmitted from plurality of satellites and the reference transmitter (fig.8 and its description) and use the signals to determine its position (fig.8, col.14, lines 7-26), wherein the data is selected from WAAS corrections (col.14, line 48). It is noted that since the position system of Small can provide differential position accuracy of several meters or centimeters (col.14, lines 46-67) which is obvious that it could be used to take snapshot data and terrain map to use in a mapping data in order to provide higher accuracy in location and navigation needs. Since Beal, Reed and Small do teach the location determination having the satellites, pseudolites, and mobile devices, therefore, it would have been obvious to one skilled in the art at the time invention was made to modify the modified Beal system with different group of WAAS corrections, terrain maps of Small to improve the location determination in order to apply to different industries.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. Claims 29-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Beal (6,101,178).

Regarding claims 29-30, Beal discloses a Pseudolite-augmented GPS for locating wireless telephones comprising: processing a number of first codes (pseudo random noise code) sent by a plurality of transmitters (fig.1, 101) to a transceiver (fig.1, 102); processing a number of second codes (replica of pseudo random noise code) generated by the transceiver, each second code generated to correspond to each first code (col.7, lines 8-53), col.11, lines 41-59); processing a number of first noise codes sent by a number of satellites (fig.2, 201) in a global positioning system (GPS) to the transceiver; processing a number of second noise codes generated by the transceiver, each second noise code generated to correspond to each first noise code; and determining a position of the transceiver relative to the transmitters and the GPS (col.7, lines 54-67, col.9, lines 1-38, col.11, lines 10-40).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CongVan Tran whose telephone number is 703-305-4024. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DONG VAN TRAN
PATENT EXAMINER

CongVan Tran
Examiner
Art Unit 2683

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